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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,498	04/04/2001	Loralei Marie Brandt	J6497(C)	3031
201	7590	07/01/2004	EXAMINER	
UNILEVER PATENT DEPARTMENT 45 RIVER ROAD EDGEWATER, NJ 07020			YU, GINA C	
			ART UNIT	PAPER NUMBER
			1617	

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,498

Applicant(s)

BRANDT ET AL.

Examiner

Gina C. Yu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-25,27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-25,27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt is acknowledged of Amendment filed on February 20, 2004. Claims 19-25, 27, and 28 are pending. Claim rejection made under 35 U.S.C. § 103 (a) over Peffly (US 5985294) in view of Samain et al. (US 6511651 B1) and Maurin et al. (US 6403542 B1) is maintained for the reasons of the record. Claim rejection made under § 103 (a) over Peffly, Samain, and Maurin, and further in view of Mizutani (US 4411891) is withdrawn in view of the claim amendment. New rejection is made.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 19- 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peffly (US 5985294) in view of Samain et al. (US 6511651 B1) ("Samain") and Maurin et al. (US 6403542 B1) ("Maurin").

Claim 19 requires 0.04-1.5 % of a polymer comprising methacrylamidopropyl dimethylamine and vinylpyrrolidone and hydroxyethyl cellulose in alcoholic carrier chosen from methanol, ethanol, N-propanol, isopropanol, or the mixture thereof; wherein the ratio of the polymer and hydroxyethyl cellulose is 1:2.2 to 1:0.2.

Peffly teaches hair styling gel composition comprising 3 % by weight of PVP/VA copolymer (50 % active) and 1 % by weight of hydroxyethyl cellulose, the ratio of the copolymer to hydroxyethyl cellulose meeting the limitations of claim 19 (c). See Example III. The reference also teaches that the total amount of hair styling polymer is preferably from about 0.5-10 % by weight. See col. 3, lines 33 – 44. The reference

teaches Styleze CC-10 from ISP, which is vinylpyrrolidone/methacrylicamidopropyl dimethylamine copolymer.

The reference fails to explicitly disclose the weight amount and ratio of the PVP/VA polymers and hydroxyethyl cellulose as recited in the instant claims.

Generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. See MPEP § 2144.05. Since the ranges of the total amount of the hair holding polymers and the weight ratio thereof are disclosed in Peffly, examiner views that one having ordinary skill in the art would have discovered the optimum or workable ranges by routine experimentation. It would have been obvious to a routineer to use lesser amount of the active film forming polymers because of an expectation of successfully producing a hair styling gel composition with a desired degree of hair holding properties or stiffness.

Peffly fails to specifically teach a copolymer having vinylpyrrolidones, vinylcaprolactam, and methacrylicpropyl dimethylamine.

Samain teaches that vinyl lactam copolymers such as ACP 1189 of ISP, which is a terpolymer of polyvinylpyrrolidones, vinylcaprolactam, and dimethylaminopropyldimethylamine are well known hair fixing polymers. See col. 3, lines 42 – 60.

Maurin teaches a composition comprising vinyl lactam cationic copolymers also comprising vinylpyrrolidone and methacrylamidopropyldimethylamine such as ACP 1189 from ISP. See abstract; col. 3, lines 48-51.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Peffly composition by substituting the copolymer of vinyl lactum as motivated by Samain and Maurin because of the expectation of successfully producing a similar hair styling composition.

2. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peffly, Samain, and Maurin as applied to claims 19-25, and further in view of Leitch et al. (US 5753216) ("Leitch").

While Peffly, discussed above, generally teaches using cellulose derivatives in hair styling compositions, the reference fails to teach nonionic dextran.

Leitch teaches that Dextran purified crude Grade 2P (nonionic dextran), manufactured from D&O Chemicals, is a hair care polymer well known in the art. See col. 21, lines 60 – 67. The reference also teaches that hydroxyethyl cellulose is also useful as a thickening agent. See *Id.*; col. 13, line 22-col. 14, line 26. The reference teaches that the water-soluble polymer is used as a thickener and distributing aid which "helps to distribute the composition onto the hair avoiding localized deposition of the active component onto the hair or skin". See col. 21, lines 60 – 66; col. 22, lines 26-30. The amount of distributing aid is said to be in the range of 0.02-5 % of the composition. See col. 22, lines 38 – 50.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composition of the combined references by substituting hydroxyethyl cellulose with Dextran 2P as motivated by Leitch because 1) both Peffly and Leitch teach of the nonionic polysaccharide in hair styling composition;

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2) Leitch teach of the equivalence of hydroxyethyl cellulose and Dextran 2P as thickener; and 3) Leitch teaches the additional benefit of Dextran 2P which serves as a distributing agent. Thus the skilled artisan would have been motivated to combine the teachings of the references in a reasonable expectation of successfully producing a hair styling composition with distributes active ingredients evenly over the hair.

Response to Arguments

Applicant's arguments with respect to claims 19-27 have been considered but are unpersuasive in part and moot in view of the ground of new rejection in part.

Applicants argue "none of the examples with the terpolymer and none of the examples save Example III disclose HEC (hydroxyethyl cellulose)". The argument is not persuasive because it is well settle in patent law that disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. The court in In re Susi held that "a known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use." See 440 F.2d 442, 169 U.S.P.Q. 423 (C.C.P.A. 1971). In this case, Peffly states in col. 3, lines 53-55, "[s]uitable non-silicone-containing hair styling polymers include nonionic, anionic, cationic, and amphoteric polymers, and mixtures thereof". The reference teaches a hairstyling terpolymer, vinyl caprolactam/PVP/dimethylaminoethyl methacrylate terpolymer. See col. 4, lines 16 – 19. HEC is also taught as a nonionic hairstyling polymer. See col. 4, lines 53-56. Examiner maintains the position that, according to the teachings of the reference, combining a terpolymer and HEC would have been obvious

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to a routineer, and the mere absence of an exemplified formulation comprising both polymers does not teach away from the combination of the two. There is nothing nonobvious or surprising in combining well-known hair styling polymers in this case.

Applicants assert that one of skill in the art “would not consider PVP/VA as substitute for the terpolymer”, because “the reference itself does not equate cationic (terpolymer) and nonionic (PVP/VA) polymers”. Applicants’ argument is not agreed because, as taught in Peffly, col. 3, lines 53-55, as discussed above, the one type of polymer can be used for another or in mixture.

Applicants’ assertion that using a terpolymer instead of a “copolymer” would have been unobvious to the routineer is not agreed because one of ordinary skill in chemical art would have understood that a copolymer by definition is “an elastomer produced by the simultaneous polymerization of two or more dissimilar monomers”. See Chemical Dictionary, p. 233. A terpolymer such as the terpolymer of polyvinylpyrrolidones, vinylcaprolactam, and dimethylaminopropyldimethylamine is a copolymer. In fact, Peffly teaches using a cationic terpolymer in col. 4, lines 16-19, as discussed above.

Applicants’ assertion that “it would be quite difficult, if not impossible for the skilled chemist to specifically know and then select the terpolymer and HEC” is a mere opinion and does not overcome the obviousness of combining the two polymers, which is objectively shown in Simian and Maurin. The references both show that the applicants’ terpolymer has been used in hair styling composition art. Maurin teaches a specific formulation comprising the terpolymer. While applicants assert that applicants’ combination provides “special styling benefits” shown in spec. pp. 22-23, examiner

views that the increased "crust" and "stiffness" of the combination of the two polymers indicated therein is a mere additive effect of two hair styling polymers. The level of crust and stiffness of HEC and the terpolymer are 1 and 2, respectively, while the combined composition shows the level of 3. Examiner also disagrees with applicants' assertion that the claimed ratio is not taught in the references. Peffly teaches the general condition of using 0.5-10 % of the total mount of hair styling polymer, and a specific example of using 3 % of a copolymer and 1 % of hydroxyethyl cellulose. The ratio of copolymer:hydroxyethyl cellulose is within the claimed weight range.

Applicants' argument against the rejection made over Peffly, Samain, Maurin, and Mizutani is moot in view of the grounds of the new rejection as discussed above.

Conclusion

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 571-272-0635. The examiner can normally be reached on Monday through Friday, from 8:30 AM until 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gina Yu
Patent Examiner


6/17/04
**SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER**